

# SEARCH REQUEST FORM Scientific and Technical Information Center - EIC2800

Rev. 1/26/2006 This is an experimental format -- Please give suggestions or comments to Jeff Harrison, JEF-4B68, 22511.

Date 3/27/06 Serial # 09/837,897 Priority Application Date 4/19/01  
 Your Name M. Lewis Examiner # 73172  
 AU 2822 Phone 202-1538 Room 5A30

In what format would you like your results? Paper is the default. PAPER DISK EMAIL  
 If submitting more than one search request form, please prioritize the searches in order of need.

Where have you searched so far on this case?

Circle: USPT DWPI EPO Abs JPO Abs IBM TDB need before 3/31  
 Other: \_\_\_\_\_

What relevant art have you found so far? Please attach citations or Information Disclosure Statements.

What types of references would you like? Please checkmark:

Primary Refs ☒ Nonpatent Literature ☐ Teaching Refs ☐  
 Secondary Refs ☐ Foreign Patents ☐ Other ☐

Is this a "Fast & Focused Search" request? (Circle One) YES ☐ NO ☒

A "Fast & Focused Search" is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2800 and on the STIC NPL Web Page at <http://uspto-a-pattr-2/siraapps/stic/npl/nplsearch.htm>

What is the topic, such as the novelty, motivation, utility, or other specific facets defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, registry numbers, definitions, structures, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract and pertinent claims.

Claims 1, 4-9, 17-20, 22 & 25  
TFT  
Provide an active matrix LCD  
with the means to reduce off-camera  
improve capacity of the storage capacitor  
Problem: See paragraphs 4-10  
Solution: " " " " 11-21

US 6,362,507  
" 6,424,012

## Staff Use Only

Searcher: Michael O'Brien  
 Searcher Phone: 571-272-2663  
 Searcher Location: STIC-EIC2800, JEF-4B68  
 Date Searcher Picked Up: 3/28/06  
 Date Completed: 3/29/06  
 Searcher Prep/Rev Time: 300  
 Online Time: 86

## Type of Search

Structure (#) \_\_\_\_\_  
 Bibliographic ☒  
 Litigation \_\_\_\_\_  
 Fulltext \_\_\_\_\_  
 Patent Family ☒  
 Other \_\_\_\_\_

## Vendors

STN ☒  
 Dialog ☒  
 Questel/Orbit \_\_\_\_\_  
 Lexis-Nexis \_\_\_\_\_  
 WWW/Internet \_\_\_\_\_  
 Other \_\_\_\_\_

09/837877

3/29/2006 11:08:52 AM

3/29/2006 11:52:04 AM

[File 2] INSPEC 1898-2006/Jan W2  
[File 6] NTIS 1964-2006/Jan W4  
[File 8] Ei Compendex(R) 1970-2006/Jan W4  
[File 34] SciSearch(R) Cited Ref Sci 1990-2006/Jan W4  
[File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec  
[File 35] Dissertation Abs Online 1861-2006/Jan  
[File 65] Inside Conferences 1993-2006/Jan W5  
[File 94] JICST-EPlus 1985-2006/Nov W3  
[File 144] Pascal 1973-2006/Jan W2  
[File 23] CSA Technology Research Database 1963-2006/Jan  
[File 103] Energy SciTec 1974-2006/Jan B1  
[File 31] World Surface Coatings Abs 1976-2006/Jan  
[File 95] TEME-Technology & Management 1989-2006/Jan W5  
[File 68] Solid State & Superconductivity Abstracts 1966-2006/Jan  
[File 60] ANTE: Abstracts in New Tech & Engineer 1966-2006/Jan  
[File 293] Engineered Materials Abstracts 1966-2006/Jan  
[File 239] Mathsci 1940-2005/Feb  
[File 256] TECINFOSOURCE 82-2005/DEC

Set	Items	Description
S1	5415076	S SEMICONDUCTOR? ? OR SEMI()CONDUCTOR? ? OR PCB? ? OR TAB? ? OR PRINT????()CIRCUIT()BOARD? ? OR CIRCUIT????()BOARD? ? OR LOAD()BOARD? ? OR LOADBOARD? ? OR LSI? ? OR ASIC? ? OR ELECTRON???()DEVICE? ? OR PRINT????()CIRCUIT??? OR IC? ? OR INTEGRAT????()CIRCUIT??? OR CHIP? ? OR WAFER??? OR MICROCHIP? ? OR MICRO()CHIP? ? OR VLSI? ? OR FLEX????(3N)CIRCUIT OR FLEX???? OR (LEAD? ? OR WIRE? ? OR WIRING OR LINE? ? OR TRAC???? OR INTEGRAT????(3N)FLEX???? OR ACTIVE????(2N)MATRI??? OR ACTIVE()MATRIX()LCD? ? OR AM()LCD? ? OR AMLCD? ? OR ELECTROOPTIC??? OR ELECTRO()OPTIC???? OR LIQUID()CRYSTAL????() (DISPLAY???? OR PANEL???? OR MATRI???? OR SCREEN????) OR LIQUID(2N)DISPLAY??? OR FLAT()SCREEN() (DISPLAY???? OR PANEL???? OR MATRI???? OR SCREEN????) OR LCM? ? OR LIQUID(3N)CRYSTAL????
S2	8838	S (PIXEL???? OR PEL? ?) (3N) (MATRI??? OR CIRCUIT????) OR PICTURE(3N)ELEMENT???
S3	279935	S TFT? ? OR THIN()FILM()TRANSISTOR OR FET? ? OR FIELD()EFFECT()TRANSISTOR????
S4	1810565	S CAPACIT???? OR (STOR???? OR AUXIL?????) (3N)CAPACIT???? OR CAPACIT????()WIRING()LINE? ?
S5	477853	S (CHANNEL???? OR TRENCH???? OR ETCH???? OR GROOV???? OR VIA? ? OR WELL????) (3N) (REGION???? OR AREA? ? OR SECTION???? OR SURFAC???? OR SECTOR???? OR PART?????) OR CHANNEL(3N)FORM????
S6	7369484	S WIRING OR WIRE OR FLEX???? OR FIBER???? OR FIBRE? ? OR LEAD? ? OR LINE OR (WIRING OR WIRE OR FLEX???? OR LEAD? ?) (3N) (LINE? ? OR TRAC????)
S7	220561	S (INSULAT???? OR NON()CONDUCT???? OR DIELEC???? OR NONCONDUCT????) (3N) (LAYER???? OR FILM???? OR COAT???? OR COVER???? OR SHEET??? OR LAMINA???? OR OVERLAY???? OR THICK???? OR COVERLAY OR COVER()LAYER???? OR FINISH????)
S8	32263	S IMPURIT????(3N) (REGION???? OR AREA? ? OR SECTION???? OR SURFAC???? OR SECTOR???? OR PART?????)
S9	23100	S GATE? ?(3N) (ELECTROD???? OR CATHOD???? OR ANOD???? OR CONDUCT???? OR PROB???? OR PLAT???? OR WIRING)
S10	0	S S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND S7 AND S8 AND S9
S11	5	S S1 AND S2 AND S3 AND S4 AND S5
S12	2	RD (unique items)
S13	763	S S1 AND S2 AND S3
S14	0	S S13 AND ((REDUC???? OR LOWER???? OR MINIMI????? OR ELIMINAT????? OR DECREAS????) (3N) (OFFCURRENT OR OFF()CURRENT))
S15	200	S S3 AND ((REDUC???? OR LOWER???? OR MINIMI????? OR ELIMINAT????? OR DECREAS????) (3N) (OFFCURRENT OR OFF()CURRENT))

09/837877

3/29/2006 11:08:52 AM  
3/29/2006 11:52:04 AM

S16 0 S S15 AND S2  
S17 41 S S15 AND S4  
S18 4 S S17 AND S5  
S19 1 RD (unique items)  
S20 0 S S1 AND S2 AND S3 AND S8 AND S9  
S21 15 S S3 AND S8 AND S9  
S22 5 S S21 AND S4  
S23 4 RD (unique items)  
  
S24 139243 S S4 AND ((IMPROV????? OR EFFICIEN??????? OR INCREAS?????? OR INCREAS????? OR  
MAXIMI??????????? OR BETTER) (3N) (CAPACIT???????? OR STOR????????))  
  
S25 0 S S24 AND S1 AND S2 AND S3  
S26 15220 S S24 AND S1  
S27 7 S S26 AND S2  
S28 6 RD (unique items)  
S29 5 S S2 AND S3 AND S4 AND S5  
S30 2 RD (unique items)  
S31 568 S S1 AND S3 AND S4 AND S5  
S32 71 S S31 AND S6  
S33 0 S S32 AND S8  
S34 16 S S32 AND S9  
S35 7 S S34 AND S7  
S36 1 RD (unique items)  
  
S37 34 S S31 AND ((IMPROV????? OR EFFICIEN??????? OR INCREAS?????? OR INCREAS????? OR  
MAXIMI??????????? OR BETTER) (3N) (CAPACIT???????? OR STOR????????))  
  
S38 0 S S37 AND ((REDUC????? OR LOWER????? OR MINIMI????????? OR ELIMINAT????????? OR  
DECREAS????????) (3N) (OFFCURRENT OR OFF()CURRENT))  
  
S39 17 S S37 AND PY<=1998  
S40 14 RD (unique items)  
S41 1 S S36 NOT S19  
S42 2 S S12 NOT (S19 OR S36)  
S43 4 S S23 NOT (S12 OR S19 OR S36)  
S44 6 S S28 NOT (S12 OR S19 OR S23 OR S36)  
S45 0 S S30 NOT (S12 OR S19 OR S23 OR S28 OR S36)  
S46 13 S S40 NOT (S12 OR S19 OR S23 OR S28 OR S36)

3/29/06

09/837877

(FILE 'HOME' ENTERED AT 14:03:28 ON 29 MAR 2006)

FILE 'CAPLUS' ENTERED AT 14:03:36 ON 29 MAR 2006

L1 21525 SEA ABB=ON PLU=ON TFT OR THIN FILM TRANSISTOR  
L2 30412 SEA ABB=ON PLU=ON PIXEL##### OR PEL OR PICTURE ELEMENT  
L3 564262 SEA ABB=ON PLU=ON CAPACIT##### OR STOR#####(3A)CAPACIT#####  
  
L4 1311 SEA ABB=ON PLU=ON OFF CURRENT OR OFFCURRENT  
L5 46417 SEA ABB=ON PLU=ON (IMPROV##### OR INCREAS##### OR BETTER  
OR EFFICIEN#####) (3A)CAPACIT#####  
L6 0 SEA ABB=ON PLU=ON L1 AND L2 AND L3 AND L4 AND L5  
L7 12 SEA ABB=ON PLU=ON L1 AND L2 AND L3 AND L4  
L8 5 SEA ABB=ON PLU=ON L7 AND PY<=1998  
L9 45 SEA ABB=ON PLU=ON L1 AND L2 AND L4  
L10 0 SEA ABB=ON PLU=ON L9 AND L5  
L11 8784 SEA ABB=ON PLU=ON CHANNEL(3A)REGION#####  
L12 8 SEA ABB=ON PLU=ON L11 AND L9  
L13 0 SEA ABB=ON PLU=ON L12 AND PY<=1998  
L14 4672 SEA ABB=ON PLU=ON IMPURIT####(3A)REGION  
L15 8 SEA ABB=ON PLU=ON L14 AND L9  
L16 0 SEA ABB=ON PLU=ON L15 AND PY<=1998

D L8 1-5 IBIB ABS

FILE 'STNGUIDE' ENTERED AT 14:12:00 ON 29 MAR 2006

09/837877

3/29/2006 2:24:01 PM

**[File 342] Derwent Patents Citation Indx 1978-05/200607**

s pn=us 6362507

S1 1 S PN=US 6362507

map pn/ct=

SearchSave "SC354" stored  
1 Select Statement, 4 Search Term(s)  
SearchSave SC354

1 SearchSave(s), 4 Search Term(s)

map pn

SearchSave "SC355" stored  
5 Select Statements, 45 Search Term(s)  
SearchSave SC355

1 SearchSave(s), 45 Search Term(s)

**[File 344] Chinese Patents Abs Jan 1985-2006/Jan**  
**[File 347] JAPIO Nov 1976-2005/Sep(Updated 060103)**  
**[File 350] Derwent WPIX 1963-2006/UD,UM &UP=200607**

Set	Items	Description
S1	20	S1:S4 FROM 344, 347, 350
S2	0	S S1 AND PY<=1998

09/837877

3/29/2006 2:24:01 PM

**[File 342] Derwent Patents Citation Indx 1978-05/200607**

s pn=us 6424012

S1 1 S PN=US 6424012

map pn/ct=

SearchSave "SC356" stored

1 Select Statement, 6 Search Term(s)

SearchSave SC356

1 SearchSave(s), 6 Search Term(s)

map pn

SearchSave "SC357" stored

5 Select Statements, 46 Search Term(s)

SearchSave SC357

1 SearchSave(s), 46 Search Term(s)

**[File 344] Chinese Patents Abs Jan 1985-2006/Jan**

**[File 347] JAPIO Nov 1976-2005/Sep(Updated 060103)**

**[File 350] Derwent WPIX 1963-2006/UD,UM &UP=200607**

Set	Items	Description
S1	17	S1:S4 FROM 344, 347, 350
S2	0	S S1 AND PY<=1998

09/837877

3/29/2006 12:34:30 PM

3/29/2006 1:07:12 PM

[File 344] Chinese Patents Abs Jan 1985-2006/Jan  
[File 347] JAPIO Nov 1976-2005/Sep(Updated 060103)  
[File 350] Derwent WPIX 1963-2006/UD,UM &UP=200607  
[File 371] French Patents 1961-2002/BOPI 200209

Set Items Description

S1 2895047 S SEMICONDUCTOR? ? OR SEMI()CONDUCTOR? ? OR PCB? ? OR TAB? ? OR  
PRINT????()CIRCUIT()BOARD? ? OR CIRCUIT???()BOARD? ? OR LOAD()BOARD? ? OR LOADBOARD? ? OR LSI? ?  
OR ASIC? ? OR ELECTRON???()DEVICE? ? OR PRINT???()CIRCUIT??? OR IC? ? OR INTEGRAT????()CIRCUIT???  
OR CHIP? ? OR WAFER??? OR MICROCHIP? ? OR MICRO()CHIP? ? OR VLSI? ? OR FLEX????(3N)CIRCUIT OR  
FLEX???? OR (LEAD? ? OR WIRE? ? OR WIRING OR LINE? ? OR TRAC???? OR  
INTEGRAT????) (3N)FLEX???? OR ACTIVE????(2N)MATRI??? OR ACTIVE()MATRIX()LCD? ? OR AM()LCD? ?  
OR AMLCD? ? OR ELECTROOPTIC??? OR ELECTRO()OPTIC???? OR LIQUID()CRYSTAL????() (DISPLAY??? OR  
PANEL??? OR MATRI??? OR SCREEN????) OR LIQUID(2N)DISPLAY??? OR FLAT()SCREEN() (DISPLAY??? OR  
PANEL??? OR MATRI???? OR SCREEN????) OR LCM? ? OR LIQUID(3N)CRYSTAL????

S2 57958 S (PIXEL???? OR PEL? ?) (3N) (MATRI??? OR CIRCUIT????) OR PICTURE(3N)ELEMENT???

S3 121507 S TFT? ? OR THIN()FILM()TRANSISTOR OR FET? ? OR FIELD()EFFECT()TRANSISTOR????

S4 761382 S CAPACIT???? OR (STOR???? OR AUXIL?????) (3N)CAPACIT???? OR  
CAPACIT???()WIRING()LINE? ?

S5 419351 S (CHANNEL???? OR TRENCH???? OR ETCH???? OR GROOV???? OR VIA? ? OR  
WELL????) (3N) (REGION???? OR AREA? ? OR SECTION??? OR SURFAC???? OR SECTOR??? OR PART?????)  
OR CHANNEL(3N)FORM????

S6 3762252 S WIRING OR WIRE OR FLEX???? OR FIBER???? OR FIBRE? ? OR LEAD? ? OR LINE OR  
(WIRING OR WIRE OR FLEX???? OR LEAD? ?) (3N) (LINE? ? OR TRAC????)

S7 467672 S (INSULAT???? OR NON()CONDUCT???? OR DIELEC???? OR  
NONCONDUCT????) (3N) (LAYER???? OR FILM???? OR COAT???? OR COVER???? OR SHEET??? OR LAMINA???? OR  
OVERLAY???? OR THICK???? OR COVERLAY OR COVER()LAYER???? OR FINISH????)

S8 32122 S IMPURIT????(3N) (REGION???? OR AREA? ? OR SECTION??? OR SURFAC???? OR  
SECTOR??? OR PART?????)

S9 105960 S GATE? ?(3N) (ELECTROD???? OR CATHOD???? OR ANOD???? OR CONDUCT???? OR  
PROB??? OR PLAT???? OR WIRING)

S10 428633 S IC=(G02F-001 OR H01L-031/36 OR H01L-023/02 OR H01L-023/12 OR H01L-023/50 OR  
H01L-023/52 OR H01L-025/065 OR H01L-025/07 OR H01L-025/18 OR H01L-023/34 OR H05K-001/00 OR H05K-  
001/11 OR H05K-001/18 OR H05K-007/14)

S11 71230 S MC=(U11-C05F5 OR U11-C18A1 OR U11-D01A6 OR U14-A03B4 OR U14-A10 OR V04-Q02A2 OR  
U11-D01A3 OR U11-E01C OR U14-A10 OR U14-H03C3 OR V04-Q05 OR V04-R05D OR V04-T01C)

S12 0 S S1 AND S2 AND S3 AND S4 AND S5 AND S6 AND S7 AND S8 AND S9

S13 57 S S1 AND S2 AND S3 AND S4 AND S5

S14 28 S S13 AND S6

S15 19 S S14 AND S7

S16 1 S S15 AND S8

S17 16 S S15 AND S10

S18 0 S S17 AND S11

S19 10 S S17 AND PY<=1998

S20 3 S S2 AND S3 AND S4 AND S5 AND S8 AND S9

S21 3 S S13 AND ((IMPROV???? OR EFFICIEN???? OR INCREAS???? OR INCREAS???? OR  
MAXIMI???? OR BETTER) (3N) (CAPACIT???? OR STOR????))

S22 5 S S13 AND ((REDUC???? OR LOWER???? OR MINIMI???? OR ELIMINAT???? OR  
DECREAS????) (3N) (OFFCURRENT OR OFF()CURRENT))

S23 852 S S2 AND S3 AND S4

09/837877

3/29/2006 12:34:30 PM  
3/29/2006 1:07:12 PM

S24 8 S S23 AND ((REDUC???? OR LOWER???? OR MINIMI???????? OR ELIMINAT???????? OR  
DECREAS?????) (3N) (OFFCURRENT OR OFF()CURRENT))

S25 5 S S24 AND PY<=1998

S26 52 S S23 AND ((IMPROV???? OR EFFICIEN???????? OR INCREAS???????? OR INCREAS???????? OR  
MAXIMI???????? OR BETTER) (3N) (CAPACIT???????? OR STOR????????))

S27 44 S S26 AND S10

S28 0 S S27 AND S11

S29 31 S S27 AND PY<=1998

S30 3 S S20 NOT S16

S31 2 S S21 NOT (S16 OR S20)

S32 4 S S22 NOT (S16 OR S20 OR S21)

S33 1 S S25 NOT (S16 OR S20 OR S21 OR S22)

S34 7 S S19 NOT (S16 OR S20 OR S21 OR S22 OR S25)

S35 1 S S26 AND S8

S36 3 S S26 AND S5

S37 0 S S35 NOT (S16 OR S19 OR S20 OR S21 OR S22 OR S25)

S38 0 S S36 NOT (S16 OR S19 OR S20 OR S21 OR S22 OR S25 OR S35)